AMENDMENTS TO THE CLAIMS

In accordance with the revised format for making amendments as set forth in 37 C.F.R. § 1.121, amendments to the present claims include additions indicated by way of underlining and deletions indicated by way of strikethroughs. Additionally, all claims are provided with a status indicator in parenthetical immediately following the claim number.

1. (Allowed) An underwater cable laying device for laying cable in a trench in an underwater substrate, said device comprising:

a movable support structure for supporting said cable dispenser above said trench and for traveling on said substrate along said trench;

a cable dispenser mounted on said support for dispensing cable into said trench;

said dispenser comprising an elongated stationary spool having at least one end flange, said spool being mounted on said support structure so as to leave said one end flange free of obstructions to the movement of the cable off of said spool over said flange, and wherein said spool has a hollow center and including a guide structure for guiding said cable off of said spool, and into and through said hollow center;

a waterproof powered dispensing mechanism for withdrawing cable from said spool in the general direction of the longitudinal axis of said spool over said flange while controlling the tension on said cable and directing said cable into said trench.

2. (Allowed) A device as in Claim 1 including a tension control mechanism for controlling the dispensing of the cable so as to maintain a substantially constant tension in the cable.

3. (Cancelled) A device as in Claim 1 in which said spool has a hollow center and including a guide structure for guiding said cable off of said spool, and into and through said hollow center.

4. (Allowed) A device as in Claim 1 including an underwater motive mechanism for moving said support structure along said underwater substrate, said dispenser being adapted to dispense said cable as said support structure moves.

5. (Allowed) A device as in Claim 1 in which said powered dispensing mechanism includes an arm rotatably mounted on said support structure and having at least one friction-reducing guide for guiding cable off of said spool, and a drive motor for rotating said arm with a control system to control the speed of said motor so as to maintain a desired tension in said cable.

6. (Allowed) A device as in Claim 1 in which said cable includes a fiber optic core with a plurality of metal wires wound around said core, and a laminate comprising a tensioned metal tape laminated with a plastic tape, said laminate being wrapped around said metal wires.

7. (Allowed) A device as in Claim 1 in which said cable is reverse-twisted when wound on said spool to compensate for the twist imparted to said cable during dispensing.

8. (Allowed) A device as in Claim 1 in which said spool has an axially-extending central opening, and a vertical support member for supporting said spool adjacent said one end flange, and a shaft rotatably mounted at one of its ends on said support member and rotatably mounted at the other of its ends in said central opening in said spool.

9. (Allowed) A device as in Claim 1 including a surface vessel and a cable extending from said vessel to said dispenser to supply electrical power to and provide communications with said dispenser.

10. (Allowed) A device as in Claim 1 including a counter for counting the revolutions of said spool and transmitting corresponding signals to indicate the length of said cable dispensed.

11. (Withdrawn) A method of dispensing cable underwater comprising unwinding said cable from a spool by pulling said cable over one end of the spool by rotating a dispensing arm adjacent said one end of said spool and controlling the speed of rotation of said arm to control the tension in said cable.

12 (Withdrawn) A method as in Claim 11 including measuring the tension ins aid cable, comparing said tension with a desired tension, and changing the speed of rotation of said arm to adjust the measured tension towards the desired tension.

13 (Withdrawn) A method as in Claim 11 in which said cable is guided through the hollow center of said spool.

14. (Withdrawn) A method as in Claim 11 including the step of counting the revolutions of said spool and sending electrical signals representing the number of said revolutions to operating personnel on the surface of said water.

15. (Currently Amended) A cable laying device for laying cable in a trench in a substrate, said device comprising:

a moveable support structure for supporting said cable dispenser above said trench and for traveling on said substrate along said trench;

a cable dispenser mounted on said support for dispensing cable into said trench;

said dispenser comprising an elongated stationary spool having at least one end flange, said spool being mounted on said support structure so as to leave said one end flange free of obstructions to the movement of cable off of said spool over said flange~~, wherein said spool has a hollow central conduit, said withdrawing mechanism has a rotary mounted dispensing arm with guide rollers for guiding said cable over the edge of said flange and through said central conduit to exit at the end opposite the end at which said flange is located~~;

a powered dispensing mechanism for withdrawing cable from said spool in the general direction of the longitudinal axis of said spool over said flange while controlling the tension on said cable and directing said cable into said trench; and

wherein said spool has a hollow central conduit and said cable withdrawing mechanism has a rotary mounted dispensing arm with guide rollers for guiding said cable over the edge of said flange and through said central conduit to exit at the end opposite the end at which said flange is located.

16. (Original) A device as in Claim 15 including a detector for measuring the tension in said cable, a comparator for comparing the tension measured by said detector with a pre-determined tension and adjusting said withdrawing mechanism to correct any difference between said measured tension and said pre-determined tension.

17. (Cancelled) A device as in Claim 15 in which said spool has a hollow central conduit, said withdrawing mechanism has a rotary mounted dispensing arm with guide rollers for guiding said cable over the edge of said flange and through said central conduit to exit at the end opposite the end at which said flange is located.

18. (Original) A device as in Claim 15 in which said spool has a hollow central conduit, said withdrawing mechanism has a rotary mounted dispensing arm mounted to rotate about said conduit, an upright support member, a shaft rotatably mounted adjacent one of its ends to said upright support member, and the opposite one of its ends extending into said conduit and being rotatably supported therein, said arm being secured to said shaft to rotate therewith, and a drive motor for rotating said shaft.

19. (Original) A device as in Claim 18 including a revolution counter for counting the revolutions of said arm.

In making the above amendments, no new matter is believed added to the claims.